



## **CLAIMS:**

A combination, comprising:

- a) an article of manufacture; and
- b) one or more components of a bioluminescence generating system, whereby the combination is a novelty item selected from among toys, fountains, personal care items, fairy dust, beverages, soft drinks, foods, textile products, bubbles, balloons, personal items, dentifrices, soaps, body paints, and bubble bath, and paper products.
- 2. The combination of claim 1, wherein the article of manufacture is selected from among squirt guns, pellet guns, finger paints, foot bags, slimy play material, clothing, bubble making toys, bath powders, body lotions, gels, body powders, body creams, toothpastes, greeting cards, mouthwashes, soaps, body paints, cosmetics, bubble baths; inks, wrapping paper, ice, dry ice and fountains.
- 15 3. The combination of claim 1, wherein the combination comprises a luciferase.
  - 4. The combination of claim 1, wherein the combination comprises a luciferin.
- 5. The combination of claim 1, wherein the combination comprises a luciferin and a luciferase.
  - 6. The combination of claim 1 that is a toy gun.
  - 7. The combination of slaim 1 that is a fountain.
  - 8. The combination of claim 1, that produces water fireworks.
  - 9. The combination of claim 1 that is a bubble making toy.

10. The combinates of claim 1 that is a cosmetic.

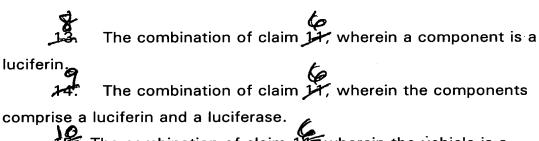
The combination of claim 1, comprising a delivery vehicle that comprises least one component of the bioluminescence generating system.

The combination of claim 14, wherein a component is a

30 luciferase.

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The combination of claim wherein the vehicle is a liposome.

The combination of claim 11, wherein the vehicle is a gelatin capsule,

The combination of claim 12, wherein the vehicle comprises

10 micronized particles of the component(s),

The combination of claim 17, wherein the vehicle is a time release vehicle.

The combination of claim , wherein the vehicle is water soluble.

- 20. An article of manufacture comprising a delivery vehicle that comprises a luciferin or a luciferase, whereby the article of manufacture is a novelty item.
  - 21. The article of manufacture of claim 20, selected from among cosmetics body lotion, body cream, body paint, bubble compositions, fountains and toys.
    - 22. The article of manufacture of claim 21 that is fairy dust.
  - 23. An article of manufacture, comprising a liposome containing either a luciferin or a luciferase or a luciferase and a luciferin, whereby the article of manufacture is a novelty item.
- 25 24. The article of manufacture of claim 23, wherein the liposome is temperature, light or pH sensitive or any combination thereof.
  - 25. An article of manufacture, comprising a matrix material that comprises a component of a bioluminescence generating system, whereby the article is a novelty item.
- 30 26. The article of manufacture of claim 25, wherein the matrix is selected from among cotton, polyester, polyester-cotton blends,

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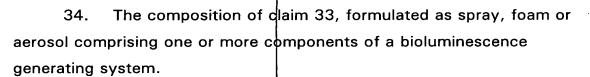
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polypropylene, polyvinyltoluene, polyvinyl propylene, celluloses, cellulose derivatives, acrylic resins, glass, silicon, ceramics, silica gels, polystyrene, gelatins, polyacrylates, polyvinyl pyrro idone, co-polymers of vinyl, polyacrylamides, latex gels, dextran, rubber, silicon, plastics, nitrocellulose, celluloses, natural sponges, synthetic sponges and porous glass.

- 27. The article of manufacture of claim 25, wherein the matrix is a textile.
- 28. The article of manufacture of claim 25 that is an item of clothing.
- 29. The article of manufacture of claim 25, wherein the components are a luciferase, a lucifer, n, or a luciferin and a luciferase.
- The combination of claim 1, wherein the system is selected from among an insect system, a coelenterate system, a ctenophore system, a bacterial system, a mollusk system, a crustacea system, a fish system, an annelid system, and an earthworm system.
  - The combination of claim 1, wherein the bioluminescence generating system is selected from among Aequorea, Vargula, Renilla, Obelin, Porichthys, Odontosyllis, Aristostomias, Oplophorus, Gaussia, firefly, bacterial, Mnemiopsis, Beroe Gonadostomias, Gaussia, Halisturia, Vampire squid, Glyphus, Mycotophid, Vinciguerria, Howella, Florenciella, Chaudiodus, Melanocostus Sea Pens, mollusc, mushroom, fish, insect, ctenophore and annelid systems.
- The combination of claim 1, wherein the system is selected from among Aequorea, Vargula, Renilla, Obelin, Porichthys, Aristostomias, Odontosyllis, Oplophorus, Gaussia, firefly and bacterial systems.
  - 33. A composition, comprising one or more components of a bioluminescence generating system wherein at least one of the components is a luciferin or a luciferase and the concentration is between about 0.1 mg/l and 10 mg/l.



- 35. The composition of claim 33, wherein the concentration is between about 1 mg/l and 5 mg/l.
- 36. A combination, comprising:

  an article of manufacture; and a fluorescent protein, whereby
  the combination is a novelty item.
- 37. The combination claim 36, wherein the article of

  10 manufacture is selected from among toys, fountains, personal care items, fairy dust, beverages, soft drinks, foods, textile products, bubbles, balloons, personal items, dentifrices, soaps, body paints, and bubble bath, and paper products.
- 38. The combination of claim 36, wherein the article of
  manufacture is selected from among squirt guns, pellet guns, finger
  paints, foot bags, slimy play material, clothing, bubble making toys, bath
  powders, body lotions, gels, body powders, body creams, toothpastes,
  greeting cards, mouthwashes, soaps, body paints, cosmetics, bubble
  baths; inks, wrapping paper, ice, try ice and fountains.
- 20 39. The combination of dlaim 36 that is a toy gun.
  - 40. The combination of claim 36 that is a fountain.
  - 41. The combination of claim 36, that produces water fireworks.
  - 42. The combination of claim 36 that is a bubble making toy.
  - 43. The combination of claim 36 that is a cosmetic.
- 25 44. The combination of claim 36, further comprising one or more components of a bioluminescence generating system.
  - 45. The combination of claim 36, wherein the fluorescent protein is encapsulated in a time-release vehicle.
- The combination of claim 1, further comprising means for delivering the remaining components of the bioluminescence generating system not present in the combination.





- 47. The combination of claim 100, wherein the delivering means is selected from among a wand, a sponge, a spray bottle, an eyedropper, cotton and a textile.
- 48. The combination of claim 1, wherein the article of manufacture is an egg-shaped toy that comprises the bioluminescence generating system.
  - 49. The combination of claim 1, wherein the article of manufacture is a footbag that comprises the bioluminescence generating system.
- 10 50. Fish food, comprising a luciferin or a luciferase.
  - 51. The fish food of claim 162, wherein the luciferin or luciferase is lyophilized.
  - 52. The fish food of claim 163, wherein the luciferin or luciferase is included in the food at a weight/weight concentration of 1 part per million to 1 part per 10.
  - 53. The fish food of claim 164, wherein in the concentration is 1 part per 10 to 1 part per hundred.
  - 54. The combination of claim 36, wherein the article of manufacture is a toy or cosmetic.
- 20 55. The combination of claim 54, wherein the toy is a bubble-toy.
  - 56. The combination of claim 54, further comprising one or more components of a bioluminescence generating system.
- 57. The combination of claim 36, wherein the fluorescent protein is selected from green fluorescent protein, blue fluorescent protein, and phycobiliprotein.
  - 58. The combination of claim 36, wherein the article of manufacture is a transgenic corn that expresses a luciferase, luciferin or fluorescent protein.

